Student ID | | | | | | | | | | |

Directorate of Education, GNCT of Delhi
Practice Paper (Mid-Term)
Session: 2026-27
CLASS – VI
SUBJECT – MATHEMATICS

Time Allowed: $2\frac{1}{2}$ hours **Maximum Marks: 60**

GENERAL INSTRUCTIONS:

Read the following instructions carefully and follow them:

(i) This question paper contains **16** questions. **All** questions are compulsory.
(ii) Question paper is divided into **FIVE** sections – **Section 'A', 'B', 'C', 'D'** and '**E'**.
(iii) In **section 'A'** question number **1** have **12** multiple choice subparts carrying **1** mark each.
(iv) In **section 'B'** question number **2** to **7** are Objective type questions carrying **2** marks each.
(v) In **section 'C'** question number **8** to **10** are Short Answer (SA) type questions carrying **3** marks each.
(vi) In **section 'D'** question number **11** to **13** are Long Answer (LA) type questions carrying **5** marks each.
(vii) In **section 'E'** question number **14** to **16** are **source based/case-based** questions, whose sub-parts are of **1, 1** and **2** marks respectively.
(viii) There is no overall choice. However, internal choice has been provided in 1 question of section **'B'**, 1 question of section **'C'**, 2 questions of section **'D'**, and in each subpart of source based/case-based question carrying 2 marks in section **'E'**. You have to attempt only one of the alternatives in all such questions.
(ix) Draw neat figures wherever required.
(x) Use of calculators is **NOT allowed.**

SECTION – A

Question 1 consists of Multiple-Choice questions (i-xii) of 1 mark each.
Choose the appropriate option from the given options: **12×1= 12**

1.(i) The common factors of 35 and 50 is:

(A) 5 (B) 7

(C) 10 (D) 35

1

(ii) How many prime numbers are there from 1 to 50?

(A) 19 (B) 15

(C) 17 (D) 13

1

(iii) Which of the following statement is true?

(A) All prime numbers are even.

(B) The number 1 is a prime number.

(C) All composite numbers are greater than 1.

(D) The number 2 is a composite number. 1

(iv) Among the numbers 1–100, how many times will the digit '7' occur?

(A) 21 (B) 20

(C) 22 (D) 19 1

(v) Largest 5-digit palindromic number is:

(A) 11111 (B) 88888

(C) 99999 (D) 55555 1

(vi) Next number in the sequence: 4, 9, 25,___ is:

(A) 49 (B) 36

(C) 81 (D) 64 1

(vii) Which number is called a triangular and square number both?

(A) 10 (B) 25

(C)16 (D) 36 1

(viii) What will be the angle between the hands at 2 o'clock?

(A) 30° (B) 60°

(C) 45° (D) 90° 1

(ix) Number of point(s) marked in the following figure is/are: 1

(A) 1 (B) 2

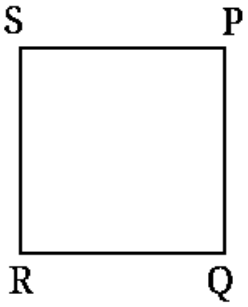
(C) 3 (D) 4

(x) Number of lines which can be drawn from one point is/are:

(A) 1 (B) 2

(C) infinite (D) 5 1

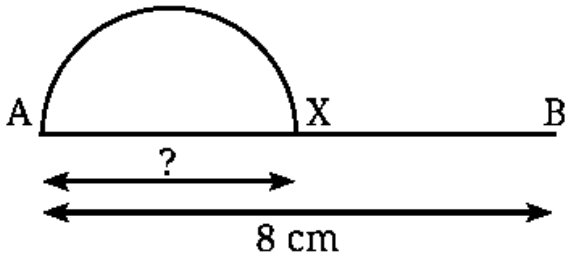
(xi) Which of the following is not a name for this square? 1



(A) PQSR (B) SPQR

(C) RSPQ (D) QRSP

(xii) What radius should be taken in the compass to get this half circle? 1



(A) 6 cm (B) 4 cm

(C) 8 cm (D) 2 cm

SECTION – B

Question 2 to 7 is Objective type questions of 2 marks each. 6×2=12

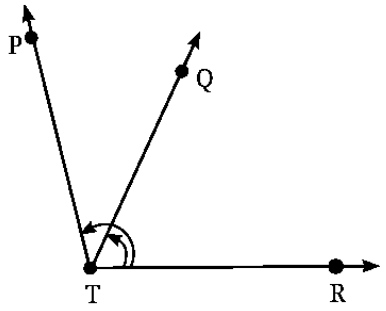
2 Write any two pairs of **twin primes** between 11 and 20. 2

3 (i) What is the smallest number whose digit sum is 14? 2

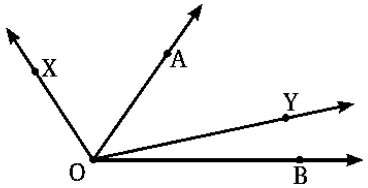
(ii) What is the largest 5-digit number whose digit sum is 14?

4 Check if the Collatz Conjecture holds for the starting number 10. 2

5 Name the angles marked in the given figure. 2



6 Which angle is greater: ∠XOY or ∠AOB? Give reasons. 2

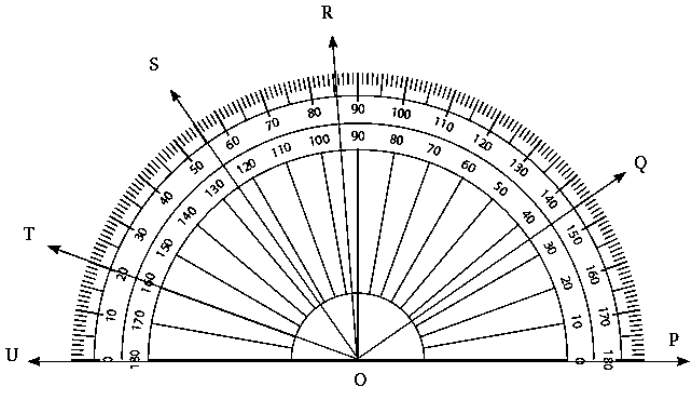


7 Construct a square PQRS of side length 6 cm. 2

SECTION – C

Question 8 to 10 is Short Answer type questions of 3 marks each. 3×3 = 9

8 Name any three different angles in the figure and also write their measures.



3

9 Construct a rectangle with sides of length 4 cm and 6 cm. 3

10 Write the first six terms of a sequence if a student multiply the triangular numbers by 6 and add 1. 3

SECTION – D

Question 11 to 13 is Long Answer type questions of 5 marks each. 3×5=15

11 (i) Find the largest and smallest 4-digit numbers that are divisible by 4 and are also palindromes. 5

(ii) Which of the following numbers are divisible by all 2, 4, 5, 8 and 10: 2352, 5600, 77622160.

12 A school builds a staircase using blocks: 5
1st step: 2 blocks
2nd step: 6 blocks
3rd step: 12 blocks
4th step: ?
5th step: ?
(i) Identify pattern rule.
(ii) Find number of blocks in 5^{th} steps.
(iii) Find total blocks in first 5 steps.
(iv) Find the number of blocks from 4^{th} step to 6^{th} step.

13 Construct a rectangle in which one of the diagonals divides the opposite angles into 45° and 45°. 5

SECTION – E

Question 14 to 16 is Source-based/ Case Study questions of 4 marks each.

3×4=12

14 Children sit in a circle and play a game of numbers. One of the children starts by saying '1'. The second player says '2', and so on. But when it is the turn of 3, 6, 9,…, the player should say '**idli**' instead of the number. When it is the turn of 5, 10, 15,…, the player should say '**vada**' instead of the number. When a number is both a multiple of 3 and a multiple of 5, the player should say '**idli-vada**'! If a player makes any mistake, they are out. The game continues in rounds till only one person remains.

Based on the above information, answer the following:

(i) Write the smallest two-digit number for which the players should say '**idli**'?

1

(ii) Write the greatest two-digit number for which the players should say '**vada**'?

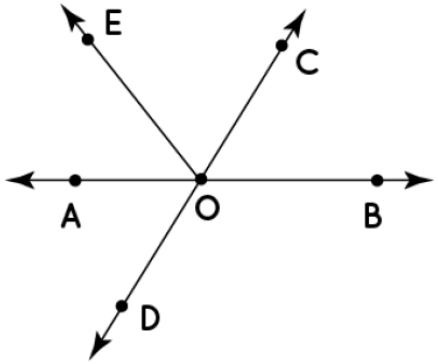
1

(iii) (a) Write the smallest two-digit number for which the players should say, '**idli-vada**'? 2

OR

(iii) (b) Write the greatest two-digit number for which the players should say, '**idli-vada**'?

15 Daksh was playing in the park near his house. He sat down near a place where five different walking paths met. He noticed that the paths met in a way that looked like the lines and angles he was learning about in school.



Use the above figure to name:

(i) Any two rays. 1

(ii) Any two-line segments. 1

(iii) (a) Any two obtuse angles. 2

OR

(iii) (b) Any two acute angles.

16 Ms. Sangeeta is an incharge of a computer lab. All the computers in the lab were protected by one password. Her assistant, Tavesh needed the password to open the computer. Ms. Sangeeta had given him three clues:

1. The password is a **five-digit palindrome number**.
2. The sum of all the digits is **25**.
3. The digit at hundreds place is **7**.

Based on the above information, answer the following:

(i) Write the general format of a 5-digit palindromic number.

1

(ii) Write any one 4-digit palindromic number.

1

(iii) (a) The time now is 10:01. How many minutes until the clock shows the next palindromic time?

OR

(iii) (b) Find the password. Write your steps.

2